

COUNTY OF YORK

MEMORANDUM

DATE: May 22, 2002 (BOS Mtg. 6/4/02)

TO: York County Board of Supervisors

FROM: James O. McReynolds, County Administrator

SUBJECT: Fort Eustis Boulevard Extension

As the Board is aware, the Design Public Hearing for the Fort Eustis Boulevard extension project was conducted several weeks ago by VDOT. Approximately 62 citizens attended the hearing, and 48 registered their opinion concerning the project. The most significant issue raised at and just prior to the hearing concerned the proposed at-grade crossing of the Amoco/Dominion Virginia Power railroad spur. All design concepts and drawings prepared by VDOT to date have assumed that this at-grade crossing would be feasible. However, it has now come to light that CSX policy will require the abandonment of at least one existing crossing in York County if a new one is proposed. Because of the federal funding (over \$4 million in Regional STP funds) involved in this project, VDOT will need to secure an agreement from CSX concerning the rail crossing issue and VDOT officials indicate they expect CSX will be very cautious about considering another at-grade crossing in this vicinity given the difficulties with the Wolftrap and Hornsbyville crossings and the trains destined to Dominion Virginia Power. Furthermore, even if it is possible to secure approval by CSX, VDOT officials are now indicating that federal and state highway engineering policies and objectives, as well as safety engineering factors, may dictate that the crossing be grade-separated.

Issues cited by the Department of Rail and Public Transportation concerning this crossing include:

- ?? The proposed width of the new roadway – 4 lanes plus a 26-foot wide median – presents challenges to adequately signalize with flashing lights and gate warning devices.
- ?? The curvature of the proposed road on its westbound approach to the rail crossing is sharp enough to create sight distance issues and would probably require additional signage and warning systems.
- ?? The road/rail crossing is skewed and is not at the optimal 90-degree angle. As a result, additional warning and signal devices will be needed. Special cantilevered lights costing over \$200,000 would be necessary.
- ?? The skew of the crossing increases its surface length to in excess of 170 feet. This length results in increased long-term maintenance obligations for the railroad and would make maintenance more time-consuming when it is performed – thus increasing the disruption to vehicular traffic.
- ?? The curvature and super-elevation of the existing tracks at the proposed crossing would create difficult design and engineering issues for the roadway approaches.

Given these conditions, it would be difficult to design and build a smooth crossing for an assumed 45 MPH posted speed limit.

- ?? The existing train traffic and its blockage of the Wolftrap and Hornsbyville crossings has caused citizen complaints in the past. An additional at-grade crossing would make it more difficult for CSX to “break” the trains to avoid blocking incidents.
- ?? The future traffic projection (9,600 ADT) represents a high potential for exposure to accidents. The industrial development potential of the surrounding area means that truck traffic could be significant, thus increasing the accident risk.

Given these concerns and issues, the Department of Rail and Public Transportation has recommended that VDOT evaluate all possible alternatives to avoiding an at-grade crossing.

To say the least, this information is disturbing and the staff and I are disappointed that the issues and concerns were not identified and addressed earlier in VDOT’s project scoping and design process. Based on our discussions with VDOT, it is clear that solving the rail crossing issue is critical to the project moving forward and that developing the solution will adversely impact the project schedule – probably by at least 18 to 24 months. With this in mind, staff has identified the following observations and alternatives for the Board’s consideration.

1. First, to set the stage, I believe it is important to reaffirm that the principal objective of this project is to improve access between the Goodwin Neck industrial corridor and Interstate 64. While virtually the entire corridor stretching from Route 17 to Dandy is designated and zoned for industrial use, it is the area along Old York-Hampton Highway (Victory Industrial Park, York River Commerce Park, etc.) that is currently developing and that could benefit immediately from improved access. Secondly, the Route 105 extension is envisioned as a route that would improve access to and from the Seaford area and that would help to siphon off some of the traffic currently using Goodwin Neck Road and passing through the Goodwin Neck/Route 17 intersection.
2. Based on discussions with VDOT, the preferred solution to the railroad crossing problem is a grade-separated design – either a bridge to carry the new roadway over the railroad tracks or, perhaps, a road underpass beneath the tracks. As noted above, even if an existing crossing could be identified for closure, it is likely that the railroad would continue to press for grade separation. The only crossing that staff can identify for potential closing is along the segment of Wolftrap Road between Hornsbyville and Goodwin Neck Roads. The properties on the north side of the railroad that front Wolftrap all have frontage on Hornsbyville Road so it would be possible to consider abandoning that segment. However, south of the railroad tracks, it would be necessary to construct a VDOT-standard cul-de-sac, which would require right-of-way acquisition, would have potential wetlands permitting issues, and could be expensive. Of greater

concern is the disruption that such a closure would cause for residents of the Hornsbyville and Waterview communities who depend on this segment of Wolftrap as an important link in their transportation network. While the Fort Eustis Boulevard extension would provide an alternate route for some of this traffic, certain connections and travel preferences would be disrupted. Although it might be possible to provide a new linkage between Hornsbyville Road and the Fort Eustis extension, that too would have potential wetlands impacts and would be expensive and time-consuming to accomplish. Clearly, there are a number of issues that would need to be investigated in connection with this option and, even though there are potential benefits to the railroad since it would eliminate the currently troublesome Wolftrap Road crossing, it does not guarantee that an at-grade crossing for the new road would be agreed to by the railroad and/or approved by VDOT. Nevertheless, staff believes this alternative should be explored, both with VDOT and the railroad, as well as with the citizens in the Hornsbyville/Waterview area.

3. Based on preliminary discussions with VDOT staff, it is estimated that construction of a 4-lane, grade-separated crossing (bridge over the railroad) would cost approximately \$2 million. The cost of installing a cul-de-sac on Wolftrap Road and constructing a new connection between Hornsbyville Road and the new Fort Eustis Boulevard is unknown at this time. However, either of these alternatives represent additional project costs that are not currently planned for in the funding allocations approved and projected. Possible ways of making up this funding gap include: additional RSTP allocations; additional allocations from the Secondary Roads allocations; or, Revenue Sharing Program contributions. In any event, this amount of money cannot be secured easily or quickly, so the project schedule for the segment involving the rail crossing will clearly be impacted
4. This project has been envisioned since it first appeared in the County, regional and statewide plans as having an ultimate 4-lane cross-section. Although VDOT's design public hearing was based on the ultimate design, the County's long-range plans and transportation priorities have envisioned the segment between Old York-Hampton and Goodwin Neck Road as being constructed initially as a two-lane road on a four-lane right-of-way. As a result of the revelation about the railroad crossing issue and its potential impact on project cost, staff has conducted a detailed analysis of the future build-out potential of the Seaford / Dandy area in an effort to evaluate the ultimate roadway capacity needs. According to the Hampton Roads 2021 Regional Transportation Plan, the Fort Eustis Boulevard extension is projected to carry 7,700 average daily trips by 2006 and 11,000 average daily trips by 2021. This analysis assumes the road will be a two-lane facility. According to HRPDC traffic modeling, with this level of traffic the road will function at a Level of Service (LOS) C (which is adequate) in both the AM and PM peak hours in 2006 and, in 2021, at LOS C and D in the AM and PM peak hours respectively. This analysis assumes that the number of households in Seaford and Dandy will increase by almost 200 between 2000 and 2021. There

is sufficient land in these areas to accommodate only about 250 additional homes beyond 2021 under the current zoning. The regional transportation plan already assumes a healthy, perhaps optimistic, increase in employment in this area between 2000 and 2021, so the potential for additional trip generation beyond 2021 is somewhat limited. In other words, the Fort Eustis Boulevard extension is projected to operate at acceptable Levels of Service through at least the next 20 years even when high levels of residential and non-residential growth are assumed. Additionally, even if another 250 homes were to be developed after 2021, the roadway would not be carrying such a high volume of traffic as to overburden a two-lane capacity. Based on this analysis, staff believes that the Fort Eustis Boulevard extension between Old York-Hampton and Goodwin Neck Roads should be designated and designed (subject to VDOT's concurrence with the growth and traffic projections) as a two-lane facility on a two-lane right-of-way, with sufficient width at intersections for necessary turning lanes. Doing so would save an undetermined amount on right-of-way acquisition costs, an estimated \$500,000 in road construction costs, and an undetermined amount as a result of needing only a two-lane vs. a four-lane bridge over the railroad (if the bridge alternative is pursued).

Conclusions / Recommendation

I believe that the County's economic development efforts will be adversely impacted if the entire Fort Eustis extension project is delayed by as much as two to three years while railroad crossing and funding issues are addressed. While it may be possible to identify an existing crossing to be closed, it could not be done without disruption of current traffic routes and without significant time and cost. Even then, there would be no guarantee that elimination of one crossing (or more) will satisfy the railroad, nor that VDOT and other project review agencies would ultimately approve an at-grade design. In light of the concerns currently associated with road blockages by long trains, there is no question that a grade-separated crossing would be the preferable solution (if it can be engineered and funded); however, closing the Wolftrap crossing could also provide some benefits for railroad operations. Finally, I believe that the ultimate growth projections for the area to served by this proposed road are such that it should be designed for an ultimate cross-section of only two lanes for the segment between Old York-Hampton and Goodwin Neck Road.

Based on the above noted considerations and conclusions, I recommend that the Board request VDOT to "split" the project into two segments, with the first and immediate priority being the completion of the four-lane segment between Route 17 and Old York-Hampton Highway and the second phase, subject to VDOT's concurrence with growth and traffic projections, being the completion of a two-lane segment (on a two-lane right-of-way) between Old York-Hampton and Goodwin Neck Road. Furthermore, I recommend that the Board request VDOT to proceed with diligence to complete the design and to construct the first segment while simultaneously working to investigate alternatives for an acceptable rail crossing solution (Wolftrap closure w/ alternate Hornsbyville connection; grade-separated

crossing; etc.) and to complete the design a revised cost estimate and funding analysis for the second segment. VDOT officials in the Hampton Roads District office have indicated that splitting the project into phases would be possible and that it would allow the Route 17 to Old York-Hampton phase to proceed with only minimal slippage in the projected June 2003 advertisement date.

Adoption of proposed Resolution No. R02-108(R) will formally state a position for transmittal to VDOT.

Carter/3337:jmc

Attachment

?? Aerial photo showing corridor alignment

?? R02-108(R)